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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/612,136	07/07/2000	Tohru Nagano	JA999-118X	8446

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EXAMINER

LOWE, TREFFANEY R

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 01/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/612,136

Applicant(s)

NAGANO ET AL.

Examiner

TREFFANEY R LOWE

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the rate" in the 8th line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "said means for extracting concepts" in 1st line of the claim. It is unclear what concept the applicant is referring to. Please correct by stating either unique or categorized concept.

Claim 2 recites the limitation "said document data" in the 6th line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "said document data" in 4th line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Paik et al (US Patent 6,076,088) hereinafter referred to as Paik.

Regarding **claim 1**, Paik teaches a systems and method for organizing text where a data analyzing system for extracting characteristic concepts from the data, comprising:

(1) means for extracting categorized concepts from the data containing text data (col. 8, lines 43-48, The office interprets browsing and query as means for extraction); and

(2) means for extracting unique concepts from said categorized concepts extracted from the data, wherein said unique concepts are conspicuous within the same content category, the rate occupied by said concepts among the concepts belonging to other corresponding categories exceeding a default (col. 8, lines 22-23 and lines 43-48).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paik in view of Katayama et al. (US Patent 5,109,509) hereinafter referred to as Katayama in view of Kupiec.

Regarding **claim 2**, Paik discloses everything regarding **claim 1**, however Paik further discloses:

Analyzing the syntax of a sentence comprising said clauses according to the syntactic tree generation rules (col. 9, lines 46-51); regarding the key words in said clauses to which concepts and a category were assigned (col. 9, lines 52-55), extracting mutually dependent relationships of the key words in the same sentence; and extracting said categorized concepts, namely based on said mutually dependent relationships among the key words, extracting combinations of the categories of the concepts in mutually dependent relationships. Paik does not disclose a morphological analyzer. Katayama, however, discloses a system wherein said means for extracting concepts (1) comprises the means for:

Morphologically analyzing said the textual part of the data (col. 2, lines 67 to col. 3, line 1 and Fig. 1, item 4);

Based on the results of said morphological analysis, generating clauses of said document data (col. 3 lines 25-31);

Extracting any key word in said clauses as concepts, applying a category dictionary to said clauses to assign concepts (a replacement expression having a representative meaning of the key word) and a category to a key word therein (col. 3 lines 5-10 and Fig. 1, items 6, 12, 13, and 14);

Therefore it would have been obvious at the time of the invention to modify Paik's information extraction with Katayama's system for processing natural language, for the purpose of developing a system to extract concepts and key words.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paik in further view of Kupiec (US Patent 6,411,962 B1).

Regarding **claim 3**, Paik discloses everything in **claim 1**, Paik further discloses wherein said means for extracting unique concepts (2) comprises the means for:

Receiving an instruction of a user (means for inputting) (col. 8, lines 9-18);

Analyzing said instruction of a user (col. 9, lines 19-23); however, Paik does not disclose a display where an attribute with different concepts may be shown. Kupiec discloses

In compliance with said analyzed instruction, presenting said categorized concepts to display with an attribute different from any other concept, of the concepts belonging to the same category, a concept whose statistical characteristic is distinguished beyond a threshold with respect to the set which it belongs (col. 5, lines 50-54 and col. 5, lines 62-66).

Therefore it would have been obvious to one skilled in the art at the time of the invention, to combine Paik's Information Extraction System with Kupiec's System and methods for organizing text to create a system where a user could input information and have it analyzed and displayed.

Regarding **claim 4**, Paik and Kupiec disclose the system according to **claim 3**, Kupiec further discloses wherein said means for extracting unique concepts (2) further comprises the means for:

Calculating the relative frequency of extracted concepts (col. 3, lines 23-28);

Searching for concepts from a set of the extracted concepts (col. 5, lines 50-54 and col. 5, lines 62-66);

Calculating the frequency of categorized concepts; and displaying said relative frequency, search results and frequency of concepts that were acquired (col. 5, lines 50-54 and col. 5, lines 62-66).

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama et al. (US Patent 5,109,509) hereinafter referred to as Katayama in view of Paik.

Regarding **claim 5**, Katayama teaches a method for extracting unique concepts from data comprising the phases of:

Morphologically analyzing said the textual part of the data (col. 2, lines 67 to col. 3, line 1 and Fig. 1, item 4);

Based on the results of said morphological analysis, generating clauses of said document data (col. 3 lines 25-31);

applying a category dictionary to said clauses to assign concepts (a replacement expression having a representative meaning of the key word) and a category to a key word therein (col. 3 lines 5-10 and Fig. 1, items 6, 12, 13, and 14); however, Katayama does not clearly teach mutually dependent relationships. Paik discloses generating a syntactic tree of a sentence comprising said clauses according to the syntactic tree generation rules (col. 9, lines 46-51);

regarding the key words in said clauses to which concepts and a category were assigned, extracting mutually dependent relationships of the key words in the same sentence (col. 9, lines 52-55); and

based on said mutually dependent relationships among the key words, extracting combinations of the categories of the concepts in mutually dependent relationships (col. 9, line 63 to col. 10 line 4). Therefore at the time of the invention, it would have been obvious to modify Katayama's system for processing natural language with Paik's information extraction system, for the purpose of having an extracting concepts system with morphological abilities and dictionary means.

Regarding **claim 6**, Katayama teaches a computer readable record medium recording a program for extracting unique concepts from data, said program including the computer implemented functions of:

Morphologically analyzing said the textual part of the data (col. 2, lines 67 to col. 3, line 1 and Fig. 1, item 4);

Based on the results of said morphological analysis, generating clauses of said document data (col. 3 lines 25-31);

applying a category dictionary to said clauses to assign concepts (a replacement expression having a representative meaning of the key word) and a category to a key word therein (col. 3 lines 5-10 and Fig. 1, items 6, 12, 13, and 14); however, Katayama does not clearly teach mutually dependent relationships. Paik discloses:

generating a syntactic tree of a sentence comprising said clauses according to the syntactic tree generation rules (col. 9, lines 46-51);

regarding the key words in said clauses to which concepts and a category were assigned, extracting mutually dependent relationships of the key words in the same sentence (col. 9, lines 52-55); and

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based on said mutually dependent relationships among the key words, extracting combinations of the categories of the concepts in mutually dependent relationships (col. 9, lines 63 to col. 10 line 4). Therefore at the time of the invention, it would have been obvious to modify Katayama's system for processing natural language with Paik's information extraction system, for the purpose of having an extracting concepts system with morphological abilities and dictionary means.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TREFFANEY R LOWE whose telephone number is 703-305-5593. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFERY HOFFSASS can be reached on 703-305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9430 for regular communications and 703-746-9430 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

trl
January 27, 2003


Richmond Dorvil
Primary Examiner